

IN THE CLAIMS:

Claims 5 through 14 were previously cancelled. Claims 2, 4 and 22 have been amended herein. All of the pending claims are presented below. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

Listing of Claims:

1. (Previously presented) An apparatus for routing interconnections among bond pads on a semiconductor die, comprising:  
a sheet-like, nonconductive structure having a first surface, a second, opposing surface for attachment to the semiconductor die and a peripheral edge, wherein a first zone is defined on the first surface adjacent the peripheral edge and a second zone is defined on the first surface, the second zone being located interiorly of, and circumscribed by, the first zone;  
a first plurality of electrically conductive discrete pads disposed in the first zone; and  
a second plurality of electrically conductive discrete pads attached to the first surface, the second plurality of electrically conductive discrete pads each having an electrical connect portion and an electrically isolated portion comprising a portion facing the first surface and a periphery defined thereabout, wherein each of the second plurality of electrically conductive discrete pads is located within the second zone.

2. (Currently amended) The apparatus of claim 1, further comprising at least one conductor extending between at least one of the first plurality of electrically conductive discrete pads and at least one of the second plurality of electrically conductive discrete pads, the at least one conductor including at least a portion external to the ~~sheet-like~~ sheet-like, nonconductive structure.

3. (Previously presented) The apparatus of claim 1, further comprising at least one conductor extending from at least one bond pad of the die to at least one of the plurality of electrically conductive discrete pads.

4. (Currently amended) The apparatus of claim 1, wherein the sheet-like, nonconductive structure is comprised of a dielectric film or sheet.

5.-14. (Cancelled)

15. (Previously presented) A semiconductor device, comprising:  
a die including a plurality of bond pads disposed on a surface thereof and a plurality of conductive bumps, each being disposed on one of the plurality of bond pads;  
an adapter adhered to the surface of the die, the adapter having a first plurality of discrete electrical contacts on a first surface thereof, each of the first plurality of discrete electrical contacts being contiguous with one of the plurality of conductive bumps, and a second plurality of discrete electrical contacts on a second surface thereof, each of the second plurality of discrete electrical contacts having an electrical connection portion and an electrically isolated portion comprising a portion facing the second surface of the adapter and a periphery defined thereabout, at least some of the second plurality of discrete electrical contacts in electrical communication with the first plurality of discrete electrical contacts; and  
a second plurality of conductive bumps, each extending from one of the second plurality of discrete electrical contacts.

16. (Previously presented) The semiconductor device of claim 15, further comprising a protective coating over at least a portion of the die and at least a portion of the adapter, the plurality of conductive bumps being at least partially exposed through the protective coating.

17. (Previously presented) A semiconductor device, comprising:  
a die including a plurality of bond pads disposed on a first surface thereof;  
an adapter adhesively secured to the die, the adapter having a first plurality of discrete electrical contacts on a first surface thereof, each electrically connected to one of the plurality of bond pads, and a second plurality of discrete electrical contacts on a second surface thereof, at least some of the second plurality of discrete electrical contacts being horizontally remote from at least some of the plurality of bond pads disposed on the first surface of the die, the at least some of the second plurality of discrete electrical contacts having an electrically isolated portion comprising a portion facing the second surface of the adapter and a periphery defined thereabout, and at least some other of the second plurality of discrete electrical contacts being electrically connected to the first plurality of discrete electrical contacts.

18. (Previously presented) The semiconductor device of claim 15, wherein the adapter comprises a material having a coefficient of thermal expansion substantially matching a coefficient of thermal expansion of the die.

19. (Previously presented) The semiconductor device of claim 15, wherein the adapter comprises at least one conductive via extending between at least one of the first plurality of discrete electrical contacts and at least one of the at least some other of the second plurality of discrete electrical contacts.

20. (Previously presented) The semiconductor device of claim 19, wherein at least one of the second plurality of discrete electrical contacts is electrically isolated from the plurality of bond pads disposed on the first surface of the die.

21. (Previously presented) The semiconductor device of claim 15, further comprising a layer of adhesive between the adapter and the die.

22. (Currently amended) The semiconductor device of claim 17, wherein the adapter further comprises a sheet-like, nonconductive structure and wherein the first plurality of discrete electrical contacts is disposed on a first surface of the ~~sheet-like~~ sheet-like, nonconductive structure and, wherein the second plurality of discrete electrical contacts is disposed on a second, opposing surface of the ~~sheet-like~~ sheet-like, nonconductive structure.

23. (Previously presented) The semiconductor device of claim 22, further comprising a plurality of conductive vias extending through the adapter electrically connecting the first plurality of discrete electrical contacts and the at least some other of the second plurality of discrete electrical contacts.

24. (Original) The semiconductor device of claim 17, wherein the adapter comprises a tape-like structure.

25. (Original) The semiconductor device of claim 17, wherein at least one of the second plurality of discrete electrical contacts is electrically interconnected with a second die.

26. (Previously presented) The apparatus of claim 1, further comprising at least one conductor extending between at least one of the first plurality of electrically conductive discrete pads and at least one other of the first plurality of electrically conductive discrete pads.

27. (Previously presented) The apparatus of claim 1, further comprising at least one conductor extending between at least one of the second plurality of electrically conductive discrete pads and at least one other of the second plurality of electrically conductive discrete pads.